

6 March 2023

Attn: Mr Manyapelo Richard Makgotlho
rmakgotlho@icasa.org.za
 CC: JDikgale@icasa.org.za

Reference: SECOND DRAFT RADIO FREQUENCY ASSIGNMENT PLAN FOR THE IMT450 BAND FOR PUBLIC CONSULATION

Dear Mr Makgotlho,

We are writing to you on behalf of the 450 MHz Alliance in response to the public consultation about the Draft Radio Frequency Spectrum Assignment Plan for the frequency band 450 MHz to 470 MHz.

The 450 MHz Alliance is an industry association that represents the interests of stakeholders in CDMA and LTE systems in the frequency range of 380 – 512 MHz, which are outside the focus of the main mobile operators but address important niche use cases in many countries. Our members include traditional wireless industry companies such as wireless license holders, carriers and major equipment manufacturers, as well as companies representing various vertical markets for machine-to-machine communication.

We received the Second Draft Spectrum Assignment Plan with great interest. 450 MHz Alliance support the proposed rules for the service operation. Below some additional references to support your document.

Coordination Requirements:

- Spectrum coordination’s in North Europe is following the same PCI structure assignment as proposed by ICASA and the field strength thresholds have been implemented in accordance with the tables below.

	Overlapping carriers ^[1,2] (Rx antenna at 3 m height)	LTE carriers with centre frequencies aligned and non-preferential PCI (Rx antenna at 3 m height)
Field strength (dBµV/m)	$55^{[3]} + 10 \times \log_{10}(BW^{[4]}/5)$	$29^{[5]} + 10 \times \log_{10}(BW^{[4]}/5)$
<p>^[1] Carriers with not aligned centre frequencies, e.g. LTE ^[2] LTE carriers with centre frequencies aligned and using preferential codes. ^[3] Value based on ECC REC(15)01 ^[4] Bandwidth in MHz ^[5] Value based on ECC REC(08)02</p>		

	To protect simplex NB PMR/PAMR-UL used close to the border from MFCN-DL. (Rx antenna at 10 m height)
Field strength (dBμV/m)	$14^{[6]} + 10 \times \log_{10}(BW^{[4]}/0.025)$
^[4] Bandwidth in MHz ^[6] Value based on ECC REC T/R 25-08	

	To protect duplex NB PMR/PAMR used close to the border. (Rx antenna at 10 m height)
Field strength (dBμV/m)	$20^{[6]} + 10 \times \log_{10}(BW^{[4]}/0.025)$
^[4] Bandwidth in MHz ^[6] Value based on ECC REC T/R 25-08	

	To protect MFCN-UL from simplex NB PMR/PAMR-DL used close to the border. (Rx antenna at 10 m height)
Field strength (dBμV/m)	$20^{[6]}$
^[6] Value based on ECC REC T/R 25-08	

Radio Network Migration:

In band technology refarming have been done in several countries during the last ten years. The typical procedure is to open two times 1.5 MHz bandwidth and start a limited LTE service with the most narrow bandwidth and the migrate to 2 x 3 MHz and finally to 2 x 5 MHz, this is also proposed as a migration plan for the Kingdom of Saudi Arabia, which is the latest consultation for the 450 MHz band.

450 MHz Alliance have previously submitted documents and data related to the 400 MHz ecosystem some which will be updated with in the weeks, if there is an interest to get the latest reports, they will be available on your request.

The 450 MHz Alliance is at your disposal should you require further explanation regarding any of the points raised through this response and also question regarding operational structure for the operations. This could be in the form of written text, phone calls or even a workshop with some of our members. Please let us know if you wish to engage in any form of further information exchange.

On behalf of the 450 MHz Alliance, we wish to express our appreciation for this opportunity to share our insights.

Yours Sincerely,



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